

**METHOD AND APPARATUS FOR TRANSMITTING SIGNALS IN A MULTI-
ANTENNA MOBILE COMMUNICATIONS SYSTEM THAT COMPENSATES FOR
CHANNEL VARIATIONS**

Abstract

5 A method is provided for transmitting signals from a transmitter comprising
two or more antennas in a mobile telecommunications network. The method involves
determining channel state information, estimating the reliability of that channel state
information, and space time block encoding at least one data sequence. Before
transmitting the data sequence, a linear transformation is applied to the data
10 sequence so as to at least partially compensate for channel variations. The linear
transformation is dependent upon the channel state information and upon the
estimated reliability of the channel state information.